

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of measuring transmission characteristics of radio channels in a radio communications system having base stations and a radio station, the radio communications system utilizing a timeslot structure in a time frame for transmitting data, the method comprising:

transmitting the data as data bursts from one of the base stations to the radio station, each of the data bursts having a channel measurement sequence;

wherein the base stations ~~in the radio communications system~~ transmit ~~each~~ ~~corresponding~~ channel measurement ~~sequence~~ sequences as bursts ~~a burst~~ having  $[[a]]$  structure that is substantially identical to  $[[a]]$  structure of the data bursts, each channel measurement sequence being transmitted in at least one timeslot in which no data is transmitted to the radio station; and

wherein the base stations ~~in the radio communications system~~ transmit ~~corresponding~~ channel measurement sequences at substantially constant power levels and at substantially a same time.

2. (Canceled)

3. (Previously Presented) The method of claim 1, wherein each channel measurement sequence is transmitted in a middle of a burst.

4. (Currently Amended) The method of claim 1, wherein the base stations ~~in the radio communications system~~ are synchronized.

5. (Previously Presented) The method of claim 4, wherein plural base stations transmit channel measurement sequences using cyclic correlation.

6. (Previously Presented) The method of claim 5, wherein plural base stations transmit same channel measurement sequences.

7. (Previously Presented) The method of claim 6, wherein different base stations transmit channel measurement sequences with different code phases.

8. (Previously Presented) The method of claim 1, further comprising:  
transmitting a channel measurement sequence and using an identifier for the channel measurement sequence in a predetermined timeslot in the time frame.

9. (Previously Presented) The method of claim 8, wherein the channel measurement sequence in the predetermined timeslot is substantially identical to channel measurement sequences in other time slots in the time frame, and wherein the method further comprises:

phase modulating the channel measurement sequence in the predetermined timeslot.

10. (Previously Presented) The method of claim 9, wherein phase modulating comprises:

phase modulating the channel measurement sequence in the predetermined timeslot by  $180^\circ$  from the time frame to a next time frame.

11. (Previously Presented) The method of claim 8, wherein the predetermined timeslot is a 0-th timeslot.

12. (Currently Amended) A radio communications system comprising:  
plural base stations for transmitting data as data bursts to at least one radio station, each of the data bursts having a channel measurement sequence;  
wherein the plural base stations transmit ~~corresponding~~ channel measurement sequences as bursts, each burst having a structure that is substantially identical to a structure of the data bursts;  
wherein each of the plural base stations transmits a channel measurement sequence in at least one timeslot in which no data is transmitted to the at least one radio station; and  
wherein the plural base stations transmit ~~corresponding~~ channel measurement sequences at substantially constant power levels and at substantially a same time.

13. (Previously Presented) The radio communications system of claim 12, wherein the radio communication system comprises a TDD (time division duplex) radio communication system.

14. (Previously Presented) The radio communications system of claim 12, wherein the radio communication system comprises a FDD (frequency division duplex) radio communication system.